

What is claimed is:

- 1 2. Apparatus for use in a telephony system, comprising:
2 a digital interface for communicating with a stimulus device;
3 a packet interface for communicating with a packet-based network;
4 and
5 a controller to receive stimulus control information from the digital
6 interface and to encapsulate the stimulus control information into one or more packets
7 for transmission over the packet-based network through the packet interface.
- 1 2. The apparatus of claim 1, wherein the controller encapsulates the
2 stimulus control information into an Internet Protocol packet.
- 1 3. The apparatus of claim 1, wherein the digital interface includes a
2 UART interface.
- 1 4. The apparatus of claim 1, wherein the digital interface includes a time
2 compression multiplex interface.
- 1 5. The apparatus of claim 1, wherein the controller adds a destination
2 address of a telephone switch system into the one or more packets.
- 1 6. The apparatus of claim 1, wherein the controller adds a destination
2 address of a stimulus telephone into the one or more packets.
- 1 7. The apparatus of claim 1, wherein the stimulus control information is
2 according to a first stimulus language, and wherein the stimulus control information
3 remains in the first stimulus language after encapsulation.
- 1 8. The apparatus of claim 1, wherein the controller encapsulates the
2 stimulus control information without translating the stimulus control information into
3 a different form.

1 9. The apparatus of claim 8, wherein the controller encapsulates the
2 stimulus control information by adding header information according to a network
3 protocol.

1 10. The apparatus of claim 9, wherein the network protocol header
2 information includes an Internet Protocol header.

1 11. The apparatus of claim 9, wherein the controller adds further header
2 information according to a transport protocol.

1 12. The apparatus of claim 11, wherein the further header information
2 includes a User Datagram Protocol header.

1 13. The apparatus of claim 1, wherein the controller also scrambles the
2 stimulus message before encapsulation.

1 14. The apparatus of claim 1, wherein the controller encrypts the one or
2 more packets.

1 15. The apparatus of claim 1, further comprising a receiver to receive the
2 one or more packets, the receiver including an element to decapsulate the one or more
3 packets to extract the stimulus control information.

1 16. The apparatus of claim 15, wherein the receiver is associated with a
2 second stimulus device, and wherein the extracted stimulus control information is in a
3 native stimulus language of the second stimulus device.

1 17. The apparatus of claim 1, wherein the stimulus control information
2 includes at least one of hook state information, display information, and key press
3 event information.

1 18. The apparatus of claim 1, wherein the stimulus control information
2 includes a command selected from the group consisting of a handset volume control

3 command, a handset connect/disconnect command, an audio stream open/close
4 command, and a ringer activation command.

1 19. The apparatus of claim 1, wherein the controller receives one or more
2 packets containing a stimulus message from the packet interface, the controller further
3 decapsulating the one or more packets to obtain the stimulus message for transmission
4 to the digital interface.

1 20. A method for use in a telephony system, comprising:
2 communicating stimulus control information with a stimulus device
3 through a first interface and packet information with a packet-based network through
4 a packet interface;
5 encapsulating stimulus control information received from the first
6 interface; and
7 transmitting the encapsulated stimulus control information as at least
8 one packet to the packet interface.

1 21. The method of claim 20, further comprising:
2 decapsulating one or more packets received from the packet interface
3 and containing stimulus control information; and
4 transmitting the stimulus control information to the first interface.

1 22. The method of claim 20, wherein the stimulus control information is in
2 a native stimulus language, and wherein encapsulating the stimulus control
3 information includes inserting the stimulus control information in its native stimulus
4 language into a payload of the at least one packet.

1 23. The method of claim 22, wherein encapsulating the stimulus control
2 information includes adding a network protocol header to the stimulus control
3 information.

1 24. The method of claim 23, wherein encapsulating the stimulus control
2 information includes adding an Internet Protocol header.

1 25. The method of claim 24, wherein encapsulating the stimulus control
2 information further includes adding a User Datagram Protocol header.

1 26. The method of claim 20, further comprising scrambling the stimulus
2 control information before encapsulating.

1 27. The method of claim 20, further comprising encrypting the at least one
2 packet.

1 28. An article including one or more machine-readable storage media
2 containing instructions for call control in a telephony system, the instructions when
3 executed causing a device to:

4 receive data according to a stimulus protocol from a first interface;
5 encapsulate the data into one or more packets; and
6 communicate the one or more packets to a packet-based data network.

1 29. The article of claim 28, wherein the one or more storage media contain
2 instructions that when executed causes the device to:

3 receive a packet containing data according to the stimulus protocol;
4 decapsulate the packet; and
5 communicate the data according to the stimulus protocol to the first
6 interface.

1 30. A data signal embodied in a carrier wave and containing instructions
2 for call control in a telephony system, the instructions when executed causing a device
3 to:

4 receive at least one packet containing a stimulus message according to
5 a first language;
6 decapsulate the at least one packet to extract the stimulus message
7 according to the first language; and
8 send the stimulus message according to the first language to a stimulus
9 device.

1 31. The data signal of claim 30, further containing instructions that when
2 executed causes a device to:

3 receive a stimulus message according to the first language from the
4 stimulus device; and

5 encapsulate the stimulus message according to a first language into at
6 least one packet.

1 32. A data signal embodied in a carrier wave for communication over a
2 packet-based network having one or more network elements, the data signal capable
3 of being processed by at least one network element, the data signal comprising:

4 header information according to a network protocol; and

5 a payload portion carrying a stimulus message according to a native
6 stimulus language of a stimulus device associated with the at least one network
7 element.

1 33. The data signal of claim 32, wherein the header information includes
2 an Internet Protocol header.

1 34. An apparatus for use in a telephony system comprising:

2 means for receiving a stimulus message from a stimulus device;

3 means for encapsulating the stimulus message into at least one packet;

4 and

5 means for transmitting the at least one packet to a packet-based
6 network.

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Add A3
Add A4
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